REMARKS/ARGUMENTS

Reconsideration of the above-identified application is respectfully requested in view of the foregoing amendments and the following remarks. Claims 1 - 8 have been cancelled. Claims 9 and 10 have been amended. Claims 11 - 14 have been withdrawn from consideration. Claims 15 and 16 have been added. Claims 9 - 16 remain in the case.

Applicants first wish to thank Examiner Garcia for his helpful suggestions including the Figures of pages 9 and 10 of the Office Action of January 2, 2004.

The drawing changes submitted with the Response filed on October 14, 2003 were objected to. A new FIGURE 4 submitted herewith is believed to overcome the objections to the drawings. In addition, reference number 29 on FIGURE 4 was not discussed in the specification. The amendment to the specification presented in this response is believed to overcome this objection.

Claims 9 and 10 were rejected under 35 U.S.C. §112, first paragraph as containing subject matter not described in adequate detail in the specification. Claims 9 and 10 have been amended and, as amended, are believed to overcome the rejection.

Claims 9 and 10 were also rejected under 35 U.S.C. §102(b) as being anticipated by Japanese Patent No. JP-62-15844 to Nishamura et al. In FIGURE 2, NISHAMURA et al. disclose a lead frame mounting assembly wherein a tab-suspending lead 4 has a tab of lead frame portion 1 having a corrugated part 2 for attachment to a semiconductor chip 6. The semiconductor chip 6, tab-suspending lead 4, tab of lead frame 1, and corrugated part 2 are all encapsulated in resin. A gap 12 is filled with bonding material 9. There is no solder joint per se. In fact, because the function on tab 1 having corrugated part 2 is essentially that of a heat sink, no direct, reliable electrical connection is required. However, a good thermal connection is necessary. The corrugation provided by NISHAMURA et al. helps compensate for

different coefficients of thermal expansion (CTE) that different chips 6 may possess and allows tab 1 to more readily perform its thermal conducting function when used with different types of chips. A gap 12 is formed between the bottom of chip 6 and the corrugated part 2. This gap, however, is filled with silver paste which is a resilient but highly thermally conductive substance that helps maintain intimate thermal contact between chip 6 and tab 1. Cracks in the resilient material, even if possible, are probably not catastrophic as they are in a solder connection using Applicants' novel solder pad.

Applicants' solder pads, on the other hand, are required to form a part of highly reliable electrical connections. First, rather than forming a corrugated portion of a lead tab which is cantilevered and ultimately potted in a resin such as epoxy, Applicants' solder tabs are mounted on a solid substrate such as a printed circuit board or other similar electronic packaging structure. Substantially the entire available surface of each solder pad is "corrugated" unlike the NISHAMURA et al. tab wherein only a portion 2 of tab 1 is corrugated. The completely different functions of Applicants' solder pads and the NISHAMURA et al. leadframe tabs dictate completely different structures.

As already stated, the interface between the NISHAMURA et al. corrugated portion 2 of tab 1 and the bottom of chip 6 is NOT an electrical connection subject to solder fatigue cracking. Rather, the interface between the bottom of chip 6 and tab 1 is a thermal interface and the corrugated section 2 of tab 1 allows slight movement of tab 1 merely in response to chips 6 having different CTEs.

Applicants have amended claims 9 and 10 to more clearly distinguish their completely different structure from that taught by NISHAMURA et al. Consequently, the rejection of claims 9 and 10 under 35 U.S.C. §102(b) is now overcome.

Applicants respectfully request that claims 9, 10, 15, and 16 be allowed and the application be passed to issue.

Respectfully submitted,
MARK LEVY & ASSOCIATES, PLLC

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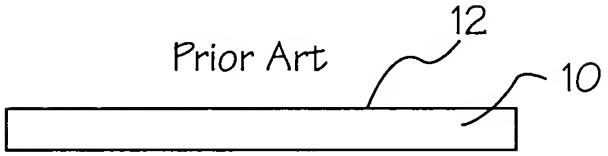

Figure 1

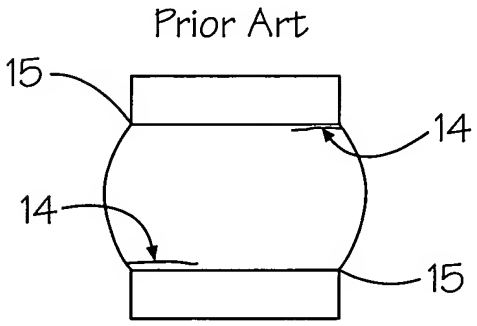

Figure 2

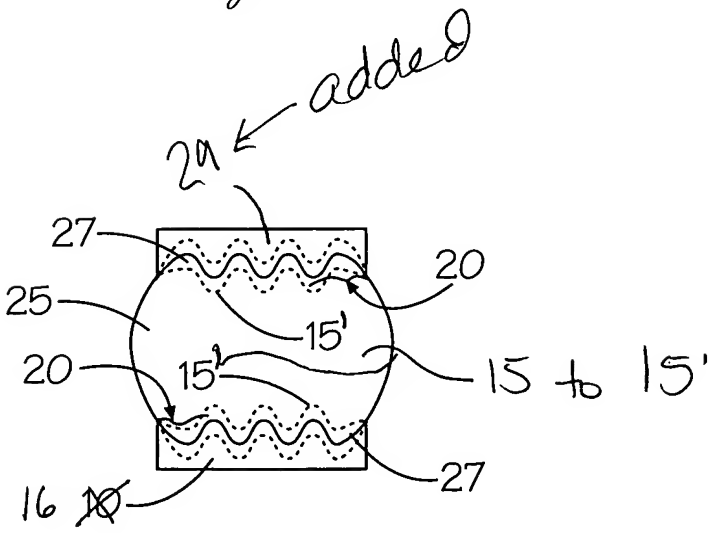

Figure 4

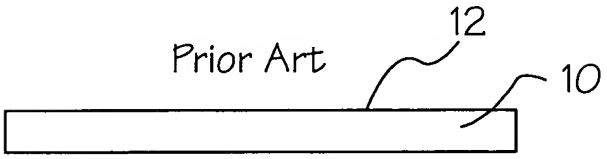

Figure 1

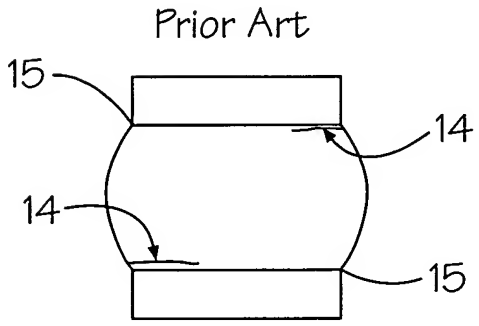

Figure 2

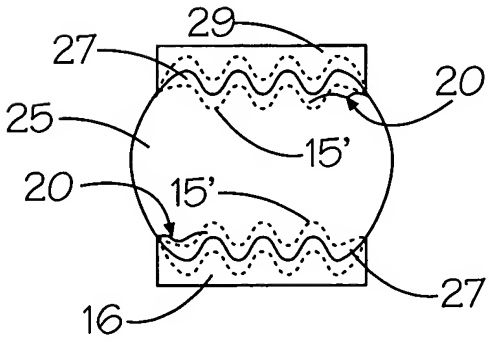

Figure 4